

**Abstract**

A system and method for programmatically generating a graphical program in response to state diagram information. A graphical program generation program (GPG program), may receive the state diagram information and automatically, i.e., programmatically, generate a graphical program based on the state diagram information. The GPG program may programmatically include graphical source code that may serve as a framework of the states specified by the state diagram information and the state transitions among the states. The graphical source code framework automatically generated by the GPG program may include various “placeholders” enabling the user to easily fill in the graphical program with source code that specifies execution instructions for each state and Boolean conditions for each state transition. In one embodiment, the graphical program may be dynamically (programmatically) updated as the state diagram is being interactively constructed by the user.

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